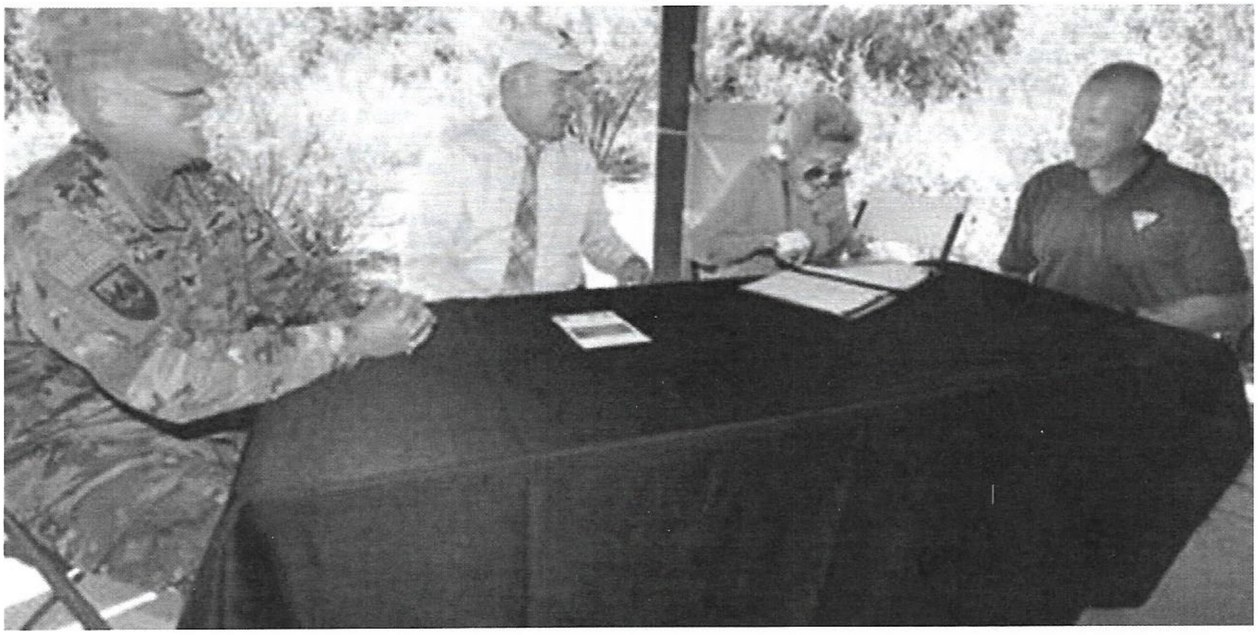
Environmentalists Seek Review of Fort Huachuca Water Use

By Howard Fischer Capitol Media Services



From left, Fort Huachuca Garrison Commander Col. Jarrod Moreland, Sierra Vista City Manager Chuck Patucek, Cochise County Board of Supervisors Chair Ann English and BLM Gila District Manager Scott Feldhausen sign a Memorandum of Understanding between the four governmental agencies regarding the San Pedro Riparian National Conservation Area at the San Pedro House Tuesday. Environmental groups asked a federal judge in Tucson to look at how Fort Huachuca's water usage is affecting the San Pedro River.
By MARK LEVY HERALD/REVIEW

Charging the federal government and Army are misstating the evidence, environmental groups asked a federal judge Tuesday to order them to take another look at how the operation of Fort Huachuca is affecting the San Pedro River.
Attorney Stuart Gillespie said the military base is claiming that its reduction in water use, coupled with recharge efforts and buying former farmland, shows there is no detrimental impact on the river, one of the last free-flowing rivers in the desert Southwest. It also is home to various endangered and threatened species.

Gillespie, representing the Center for Biological Diversity, the Sierra Club and the Maricopa Audubon Society, told U.S. District Court Judge Raner Collins in Tucson that the Army is playing fast and loose with its claims. He said the U.S. Fish and Wildlife Service, whose blessing is needed for continued operations at current levels, has accepted the military's findings.

At the very least, the environmental groups want the federal agency to go back and recompute whether the operation of Fort Huachuca, both on and off base, is harming the river. Gillespie said Collins cannot allow the base to operate as it is under findings by Fish and Wildlife that are based on "illusory water credits."

Robin Silver, one of the founders of the Center for Biological Diversity, told Capitol Media Services that if Collins accepts the arguments and scientific findings of those challenging the federal action, the real impact may be greater.

They're in a box," he said.

Theoretically, Silver said, the military can import water from other areas and use that to offset what is being used. But the more realistic move is to cut water use, "which is downsizing." "There are no other options for them," Silver said. "That's why they're lying. They're making up water credits."

John Martin, an attorney with the U.S. Department of Justice, told Collins that what the environmental groups claim is science and law is not supported by evidence. He said there is enough for Collins to conclude that Fish and Wildlife made the right decisions in concluding that the Army is doing enough to offset its water use.

At the heart of the battle is the San Pedro Riparian National Conservation Area. Created by Congress in 1988, it is home to the Western yellow-billed cuckoo, the Southwestern willow flycatcher, the Northern Mexico gartersnake and the Huachuca water umbel, a plant.

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All those depend on the flow of the river.

The environmental groups say that groundwater pumping is drying up sections of the stream and damaging the vegetation around it. That, they say, has led to declines in the species by eliminating riparian habitat and food for things like nesting, migrating, cover and shelter.

What makes this a federal case is that Fort Huachuca, as a federally funded operation, cannot make the situation worse. And that, Gillespie said, includes not only what is happening within the boundaries of the base but also its indirect effect on the population of Sierra Vista.

For example, Fort Huachuca is claiming credit for retiring agricultural operations on two ranches, including a 480-parcel near the Mexican border where there used to be alfalfa farming. Only thing is, farming stopped there in 2005, with an eye at the time to creating residential lots. Much of the irrigation system had been removed. “There’s nothing in the record, there’s absolutely no plans and no evidence that anyone was going to irrigate this property immediately, let alone at any point in the future,” Gillespie said. Yet he said Fish and Wildlife granted it an immediate water savings of 2,588 acre feet of a year “which turned the fort’s net groundwater deficit into a purported net surplus.”

Martin estimated current fort-attributable water usage at about 4,660 acre feet a year. An acre foot is about 326,000 gallons and is considered enough for two to three homes per year. “It’s self-evident that there is no water savings from a conservation easement if irrigation wouldn’t have occurred anyway,” Gillespie said.

Martin told Collins there’s nothing wrong with that. “That’s just not the way conservation easements work,” he said. “The benefit of acquiring a conservation easement is not its immediate effect. It’s the permanent benefit of precluding certain uses to maintain certain desired environments or certain conditions on the property.”

The spat is even more detailed than that.

Gillespie said the Army can’t take credit for every gallon of water not pumped. He said even if the land had remained a farm, some of that would still have found its way back into the groundwater.

Then there’s the issue that effluent recharge by the fort has not hit the predicted numbers. Martin said the answer is simple: As the base uses less water, there’s less to recharge. Gillespie also faulted Fish and Wildlife for refusing to consider the longer-term effects of pumping on the river, into 2050, citing studies that show an accelerated depletion of the groundwater. Instead, Gillespie said, any analysis stopped at 2030.

Martin said those numbers are not reliable and Fish and Wildlife made the appropriate decision to disregard them.

“That future scenario is driven by incorrect and excessively large estimates of future population growth which drive inflated numbers for water usage,” he said.

Martin also dismissed claims that the federal agency needs to do a new study, this time factoring in the effects of climate change.

Collins took the issue under advisement.

ADWR Director Testifies Before Senate Panel: Taking Steps to Protect Vital River System

Published by ADWR

In testimony before the U.S. Senate's Subcommittee on Water and Power, ADWR Director Tom Buschatzke on Wednesday, October 6th, described Arizona's long history of water conservation and groundwater management while also illustrating the drought-related challenges currently facing the Colorado River states. In particular, he focused on those challenges affecting Lake Mead and Lake Powell, which are experiencing historic drops in surface levels.

"The cause of the decline is over-allocation of the River and drought-induced reductions in the annual average flow of the River," Buschatzke told the panel, a subcommittee of the Senate Committee on Energy & Natural Resources.

The chronic nature of the region's hotter and drier future is the root cause of declining flows in the Colorado River system, he said.

An illustration of that phenomenon, he said, is the increasingly dramatic difference between runoff and snowpack in the Rocky Mountains, which are the Colorado River's primary source of water. In the 2021 water year, for example, snowpack in the Colorado River Basin peaked at 89 percent of normal, while runoff was just 33 percent of normal.

"This trend is one that water managers must take into account as we plan for the future of the Colorado River," he said.

Buschatzke was invited to speak before the Senate subcommittee along with the Honorable Tanya Trujillo, Assistant Secretary for Water and Science with the U.S. Department of the Interior, Ms. Julie Schaff Ellingson, Executive Vice President of the North Dakota Stockmen's Association, and Ms. Jennifer Pitt, Colorado River Program Director for the National Audubon Society. The session was chaired by Senator Mark Kelly of Arizona.

Water managers in the Colorado River Basin, including the seven Colorado River states and the Bureau of Reclamation, which operates the system, have taken numerous actions in recent years to stabilize the system and to slow projected declines in Lake Mead elevations. Most recently, the States identified specific steps to protect the system, which culminated in the adoption of the Upper Basin and Lower Basin Drought Contingency Plans in May 2019.

Director Buschatzke observed that, in August 2021, Bureau of Reclamation projections activated the need for further action to protect the system. Commonly known as the "elevation 1030' provision," the provision requires Arizona, California, Nevada and the Department of the Interior to "consult and determine what additional measures will be taken to protect against the potential for Lake Mead to decline below elevation 1,020 feet."

He noted to the panel that the three states have been meeting to discuss additional actions to meet that requirement and to identify and resolve the many issues that may attach to those actions.

Bureau of Reclamation Releases Updated Projections of Colorado River System Conditions

Modeling results assist drought response planning in the Colorado River Basin

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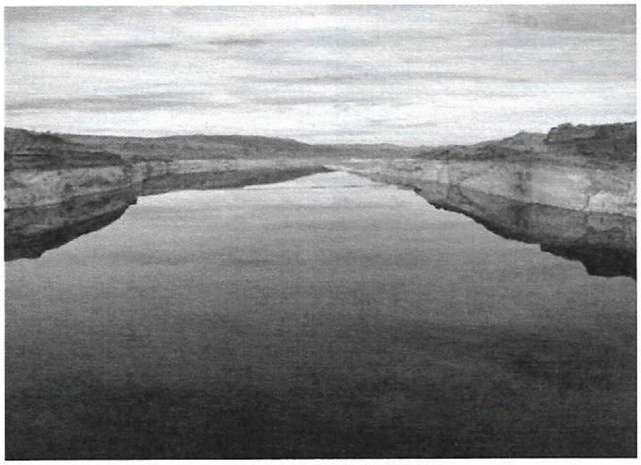

Scenic view of the Colorado River near Lake Powell

COLORADO RIVER BASIN - The Bureau of Reclamation recently released updated modeling projections of major reservoir levels within the Colorado River system over the next five years. These projections are used by Reclamation and water users in the basin for future water management planning. The new projections show continued elevated risk of Lake Powell and Lake Mead reaching critically-low elevations as a result of the historic drought and low-runoff conditions in the Colorado River Basin.

This announcement comes as the Administration pursues a whole-of-government approach to drought mitigation via the Interagency Drought Relief Working Group, co-chaired by the Department of the Interior. The Working Group is coordinating with partners across the federal government, providing assistance to impacted communities, and developing long-term solutions to climate change.

Lake Powell Projections

At Lake Powell, the projections indicate the potential of falling below minimum power pool as early as July 2022 should extremely dry hydrology continue into next year. Beyond 2022, the chance Lake Powell could fall below minimum power pool ranges from about 25% to 35%. Elevation 3,525 feet, the target elevation in Lake Powell, has an almost 90% chance of being reached next year. That target elevation provides a 35 vertical-foot buffer designed to minimize the risk of dropping below the minimum power pool elevation of 3,490 feet and balances the need to protect the infrastructure at Glen Canyon Dam and meet current operational obligations to the Lower Basin States of Arizona, California and Nevada.

“The latest outlook for Lake Powell is troubling,” said Reclamation’s Upper Colorado Basin Regional Director Wayne Pullan. “This highlights the importance of continuing to work collaboratively with the Basin States, Tribes and other partners toward solutions.”

After consultation with - and acknowledgement from - all seven Basin States and other partners, under the emergency provisions of the 2019 Drought Response Operations Agreement (DROA), Reclamation started supplemental water deliveries in July 2021 to Lake Powell from the upper reservoirs of Flaming Gorge, Blue Mesa and Navajo. Those supplemental deliveries will provide up to an additional 181 thousand acre-feet of water to Lake Powell by the end of the 2021.

As the Upper Basin States continue to work towards the development of a Drought Operations plan that will govern potential future supplemental deliveries, previous modeling assumptions regarding any additional or continued DROA releases have been removed to provide a clearer representation of future risk. The removal of these assumptions was the main contributor in the increase in risk between the last set of projections released in June of this year.

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Lake Mead Projections
At Lake Mead, today's projections indicate the chance of Lake Mead declining to elevation 1,025 feet (the third shortage trigger) is as high as 66% in 2025, and that there is a 22% chance of the reservoir elevation dropping to 1,000 feet the same year.

Reclamation continues to work with all seven Colorado River Basin States to address current conditions in the Colorado River Basin.

"This five-year probability table underscores the need for additional actions beyond the 2007 Guidelines and the 2019 Drought Contingency Plan to be taken to enhance our efforts to protect Lake Mead, Lake Powell and the Colorado River system overall," said Tom Buschatzke, Director of the Arizona Department of Water Resources.

Most of the flow of the Colorado River originates in the Rocky Mountains. The Upper Basin experienced an exceptionally dry spring in 2021, with April to July runoff into Lake Powell totaling just 26% of average, despite near-average snowfall last winter. Total Colorado River system storage today is 39% of capacity, down from 49% at this time last year.

This release also includes updated presentations that utilize additional forecast information to improve public understanding of Reclamation's future hydrologic projections. In keeping with its commitment to better inform all water users and the public regarding the hydrologic tools available, Reclamation has added in-depth information on its website about modeling and projections in the Colorado River system. A new interactive tool also allows users to explore projected reservoir conditions under a range of inflow forecasts.

"We're providing detailed information on our modeling and projections to further generate productive discussions about the future of Lake Powell and Lake Mead based on the best data available," said Reclamation's Lower Colorado Basin Regional Director Jacklynn Gould. "Being prepared to adopt further actions to protect the elevations at these reservoirs remains a Reclamation priority and focus."

Overview
Five-year projections of future conditions, currently through 2026, in the Colorado River system are typically updated every January, April, and August, while probabilistic results for the 2-year period are updated every month. The "mid- to long-term projections" are generated using a combination of Colorado River Mid-term Modeling System (CRMMS) for the current year's projections along with the Colorado River Simulation System (CRSS) for projections in year 2 and beyond.
The most recent 5-year projections of future Colorado River system conditions were produced in August of 2021 using the following assumptions:

- Initial Conditions: CRSS was initialized in January 2022 with the August 2021 Most Probable 24-Month Study projected end-of-year reservoir conditions.
- Hydrology: Index sequential method applied to the 1988-2019 historical record, i.e., Stress Test hydrology; a total of 32 future projections (i.e., traces) in the Stress Test hydrology (1 set of initial conditions from the August 2021 24-Month Study x 32 hydrologic inflow sequences).
- Water Demand: Upper Basin demands per the 2016 UCRC depletion demand schedules; Lower Basin demands developed in coordination with the Lower Basin States and Mexico.
- Policy: 2007 Interim Guidelines, Lower Basin Drought Contingency Plan, and Minute 323 are modeled reflecting Colorado River policies.

There was an important change to the modeling assumptions for the Upper Basin Drought Response Operations between the June 2021 and August 2021 projections. The June 2021 CRSS included assumptions to approximate additional releases from Flaming Gorge, Navajo, and/or the Aspinall Unit based on the Agreement for Drought Response Operations at the Initial Units of the Colorado River Storage Project Act (UB DRO). These assumptions were removed from the August 2021 CRSS (beginning in 2022) while these operational plans are under development, and in order to provide a clearer depiction of future risks.

For additional information or if you have questions pertaining to this article, please send an email to:
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www.usbr.gov

Importing Water for Drought Fix Huge Project

By: Obren Manjencich, Reprinted from the Arizona Capitol Times

Importing muddy water from the Mississippi River to save Arizona from drought could be as simple as landing a man on the moon. As droughts force local communities to find alternative solutions to water shortages, Arizonans could turn to importing flood water in the future. An interstate pipeline would be a lengthy project in terms of time and effort that in a race against time isn't an immediate answer, rather a commitment that would test the resolve of the state Legislature and Arizonans. As conversations in the Legislature continue to move forward regarding water, it's clear more needs to be hammered out.

Rep. Regina Cobb, R-Kingman, described the atmosphere when addressing water shortage resolutions. "Pretty contentious, for the most part," said Cobb. "We all know that we need more water in Arizona; it's just how to get it here."

Currently 54.2% of Arizona is in severe drought and an additional 16.5% of the state is in extreme drought, according to drought.gov.

Farmers, who used 72% of Arizona's water supply for agricultural purposes in 2019, are among the most affected by intense droughts, with over 26 million acres of farmland in jeopardy or just over one-third of the state's total acreage.

In 2019, importing water was removed from further consideration in the Long-Term Water Augmentation Options for Arizona report due to legal constraints, actual water availability, and extremely high costs.

There's still talk of importing water, but the question remains whether it's a viable solution.
The answer is: it's complicated, as past concerns still remain, as well as the longevity of a high- stakes project being completed.

Rep. David Cook, R-Globe, equates the idea to one of America's greatest achievements. "I think the idea is a great concept, like putting a person on the moon," said Cook, underscoring the amount of hard work and scientific knowledge needed.

Determining the amount of water needed for a pipeline to work is critical in Cook's opinion. "We need the experts to say how much water, is it feasible and cost effective that we would need to move," said Cook. The cost of a new pipeline and one that would cross multiple states is likely to surpass that of the Central Arizona Project pipeline, which finished construction 28 years ago.

For comparison, the Central Arizona Project cost more than $4 billion and covers 338 miles from the Colorado River at Lake Havasu City to Tucson. Attached to that pipeline is a $1.646 billion plus interest repayment obligation, that ends in 2045. As of last January, 40% of the principal ($656 million) has been repaid.

Cook also touched on another challenging aspect of the idea. "A pipeline of that magnitude would have to have the right group of stakeholders," said Cook.

Other Western states facing drought-related issues could aid Arizona in importing flood water by banding together to support such a project. Cobb could see this expediating the process. "That would probably streamline it," she said. However, Cobb noted that while the idea is enticing, states must show a serious commitment. "It depends on who comes to the table," Cobb added. "You just can't want to come to the table, but you got to have your investment, too."

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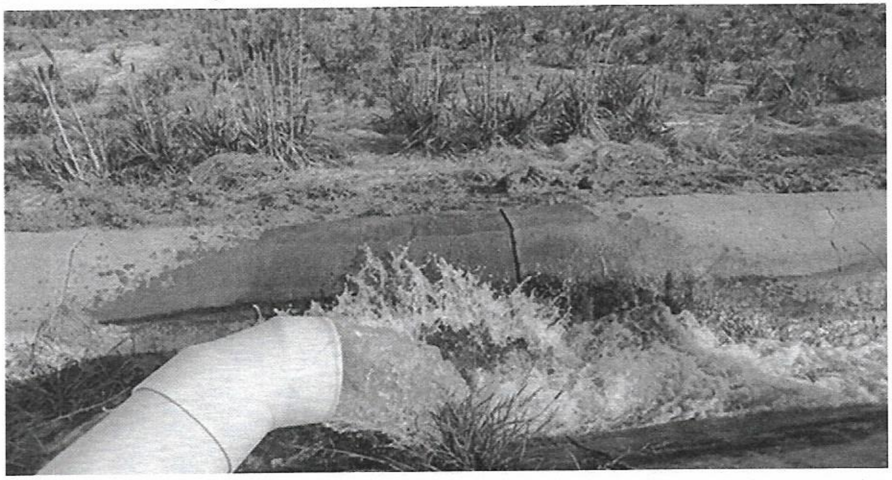
The laborious process of building a pipeline across multiple states does have its own set of legal challenges that could provide significant setbacks. Michael Pearce, the former chief counsel for the Arizona Department of Water Resources, provided his insight to potential obstacles. "I would think that a compact amongst the states to allow for the movement of water from one state to another would probably be the most appropriate vehicle to do some kind of transcontinental diversion," said Pearce. Pearce explained how a compact would work.

"You'd be talking about several states getting together; agreeing on a concept; reducing it to writing; presenting it for the approval of various states; but still having to seek congressional approval," said Pearce.

Congressional approval wouldn't come right away either. "I think it would be a very delicate process," said Pearce. "And so, I would anticipate it would take at least a few years to get a contract written and certainly to get it approved by Congress."



Water flows into a canal that feeds farms run by Tempe Farming Co., in Casa Grande, Ariz., Thursday, July 22, 2021. The Colorado River has been a go-to source of water for cities, tribes and farmers in the U.S. West for decades. But climate change, drought and increased demand are taking a toll. The U.S. Bureau of Reclamation has declared the first-ever mandatory cuts from the river for 2022.
(AP Photo/Darryl Webb)

Pearce noted his concerns about bringing Missouri or Mississippi river water to Arizona. "I think there are two concerns," said Pearce. "And they're kind of related with Missouri and Mississippi river water."

The first being the makeup of the water. "They're both very muddy," said Pearce. "They have a lot of suspended solids in them and so diverting the water out in muddy form and then trying to pump it creates practical engineering problems on keeping the pumps clean and operating."

The second has to do with silt coming to the lower basin. "The introduction of muddy water into the lower basin reservoirs creates the potential for silt," said Pearce. "And silting in reservoirs is not a good idea; it should be avoided."

While an interstate pipeline is a large undertaking that should not be the sole determinant of such a project according to Pearce. "I think it is a very intense project and one that would require a lot of determination and political will to see it through to conclusion," he said. "But I don't think that alone is reason to just simply discount it."

Pearce also acknowledged Arizona's history with water. "When it has come to our state's water resources, trying to solve those problems and protect those interests has traditionally not been a partisan issue," said Pearce.

Further bipartisan efforts are imperative to an interstate pipeline project.

"It would certainly be very, very, helpful here to have bipartisan support for ideas that will require significant cooperation both from our surrounding states and the federal Congress," said Pearce.